

Application No.: 10/033436

Case No.: 57283US002

Amendments to the Specification:

Please amend the specification as follows:

Please amend the paragraph bridging pages 14 and 15 starting on page 14, line 30 and ending on line 9 of page 15 to read as follows:

A Abrasive particles can be coated with materials to provide the particles with desired characteristics. For example, materials applied to the surface of an abrasive particle have been shown to improve the adhesion between the abrasive particle and the polymer. Additionally, a material applied to the surface of an abrasive particle may improve the dispersibility of the abrasive particles in the precursor polymer subunits. Alternatively, surface coatings can alter and improve the cutting characteristics of the resulting abrasive particle. Such surface coatings are described, for example, in U.S. Pat. Nos. 5,011,508 (Wald et al.); 1,910,444 (Nicholson); 3,041,156 (Rowse et al.); 5,009,675 (Kunz et al.); 4,997,461 (Markhoff-Matheny et al.); ~~5,213,951 (Celikkaya et al.);~~ 5,213,591 (Celikkaya et al.); 5,085,671 (Martin et al.) and 5,042,991 (Kunz et al.), the disclosures of which are incorporated herein by reference.

Please amend the paragraph starting on line 3 of page 21 and ending on line 13 to read as follows:

2 A In the case of precursor polymer subunits containing ethylenically unsaturated monomers and oligomers, polymerization initiators may be used. Examples include organic peroxides, azo compounds, quinones, nitroso compounds, acyl halides, hydrazones, mercapto compounds, pyrylium compounds, imidazoles, chlorotriazines, benzoin, benzoin alkyl ethers, diketones, phenones, or mixtures thereof. Examples of suitable commercially available, ultraviolet-activated photoinitiators have tradenames such as "IRGACURE 651," "IRGACURE 184," and "DAROCUR 1173" commercially available from Ciba Specialty Chemicals, Tarrytown, NY. Another visible light-activated photoinitiator has the trade name "IRGACURE 369" commercially available from Ciba Geigy Company. Examples of suitable visible light-activated initiators are reported in U.S. Pat. Nos. 4,735,632 (Oxman et al.) and ~~5,674,122 (Kun et al.);~~ and 5,674,122 (Krech, et al.).

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Please amend the paragraph starting on line 9 of page 23 and ending on line 22 to read as follows:

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The backing may be a sheet like structure that was previously considered in the art to be an attachment system. For example the backing may be a loop fabric, having engaging loops on the opposite second major surface and a relatively smooth first major surface. The shaped structures are adhered to the first major surface. Examples of loop fabrics include stitched loop, Tricot loops and the like. Additional information on suitable loop fabrics may be found in U.S. Patent Nos. 4,609,581 (Ott) and 5,254,194 (Ott) both incorporated herein after by reference. Alternatively the backing may be a sheet like structure having engaging hooks protruding from the opposite second major surface and a relatively smooth first major surface. The shaped structures are adhered to the first major surface. Examples of such sheet like structures with engaging hooks may be found in U.S. Patent Nos. ~~5,505,742 (Chesley), 5,567,540 (Chesley),~~ Patent Nos. 5,505,747 (Chesley), 5,667,540 (Chesley), 5,672,186 (Chesley) and 6,197,076 (Braunschweig) all incorporated herein after by reference. During use, the engaging loops or hooks are designed to interconnect with the appropriate hooks or loops of a support structure such as a back up pad.

Please amend the paragraph starting on line 6 of page 34 and ending on line 10 of page 34 to read as follows:

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The coating station can be any conventional coating means such as drop die coater, knife coater, curtain coater, vacuum die coater or a die coater. A preferred coating technique is a vacuum fluid bearing die reported in U.S. Pat. Nos. 3,594,865; 4,959,265 (Wood); and ~~5,077,870 (Millage),~~ and 5,077,870 (Melbye, et al.), which are incorporated herein by reference. During coating, the formation of air bubbles is preferably minimized.

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Please amend the paragraph starting on line 11 of page 34 and ending on line 21 of page 34 to read as follows:

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In another variation, both the shaped portion of the shaped, flexible backing and the shaped abrasive composite may be molded from a single tooling using one or two sequential coating operations. Alternatively, the production tool may be filled in two sequential coating steps, the first of which only partially fills the tool with the non-abrasive composition and the second of which fills the remainder of the tool with an abrasive-filled resin or slurry. As with the shape of the shaped features of the backing, and with the non-abrasive composition of the first coating, this second abrasive-filled resin or slurry may be tailored to optimize the performance of the resulting abrasive article. In a two-step coating operation, the first coating operation is preferably accomplished by means of the aforementioned vacuum fluid bearing die method or slide die coating method reported in US Pat. No. 5,741,549 (Brown et al.) US Pat. No. 5,741,549 (Maier, et al.).